Metcalf Energy Center, LLC

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2017 JUL 26 PH 2: 29

1 Blanchard Road Coyote, CA 95013

July 25, 2017

MANAGEREN DISTRICT

Director of Compliance and Enforcement Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105-2097

Attn: Title V Reports

Re:

Metcalf Energy Center #B2183

Title V CEMS Semi-Annual Monitoring Report Reporting Period: January 1 – June 30, 2017

To Whom It May Concern:

Enclosed is the Title V CEMS Semi-Annual Monitoring Report for the Metcalf Energy Center ("MEC") for the reporting period from January 1 – June 30, 2017.

MEC is currently in compliance with the District CEMS regulations. MEC maintained compliance with the monitoring requirements listed in the Title V permit for MEC during this reporting period.

By signing this report I am certifying that based on information and belief formed after reasonable inquiry, the statements and information in the attached report are true, accurate, and complete.

If you have any questions or require additional information, do not hesitate to contact Rosemary Silva, EHS Specialist, at (408) 361-4954.

Sincerely,

Terry Mahoney

General Manager and

Designated Representative/Responsible Official

Metcalf Energy Center, LLC.

Enclosures: Title V Semi-Annual Report

cc:

Barbara McBride

Calpine Corp

David Williams

Calpine Corp

Katherine Piper

Calpine Corp

Region 9

EPA

Table VII - A

Applicable Limits and Compliance Monitoring Requirements

S-1, GAS TURBINE #1

S-2, GAS TURBINE #2

				Monitoring	Monitoring		Comp	liance
Type of Limit	Citation of	FE Y/N	Limit	Requirement Citation	Frequency (P/C/N)	Monitoring Type	Yes	No
NOx	BAAQMD	N	125 ppm	BAAQMD	C	CEM		
1102	9-3-303	.,	123 ppiii	1-520.1			X	
NOx	BAAQMD	N	9 ppmv @ 15% O2, dry	BAAQMD	C ·	CEM		
	9-9-	.,	5 pp @ 15% 55, 5., 7	9-9-501			x	
	301.1.3			0000	1	ļ	-	
NOx	SIP	Υ	9 ppmv @ 15% O2, dry	SIP 9-9-501	С	CEM		
	9-9-301.3		, a pp & abit ab, a.,	J 5 5 5 5 5 5			Χ,	
NOx	BAAQMD	N	0.15 LB/MMBTU or 5 ppmv	BAAQMD 9-9-	С	CEM		
	9-9-301.2			501	l		X	
NOx	NSPS, 40	Υ	75 ppmv @ 15% O2, dry, 4-	NSPS 40 CFR	С	CEM		
	CFR		hour rolling average	60.334(c.)	1	ļ ,		
	60.332						X	
	(a)(1)							
		Υ	None	40 CFR 75.10	С	CEM	×	1
NOx	BAAQMD	Υ	19.2 lb/hr for each	BAAQMD	Ç	CEM		
	condition		turbine/HRSG powertrain,	condition				
	#18310,		except during turbine	#18310, Part			X	
	part 20a		startup and shutdown	27b				
NOx	BAAQMD	Υ	19.2 lb/hr for each	BAAQMD	P/A	Source Test at		
	condition		turbine/HRSG powertrain,	condition		maximum load	v	
	#18310,	1	except during turbine	#18310, Part			X	
	part 20a		startup and shutdown	31				
NOx	BAAQMD	Y	0.00904 lb/MM BTU for	BAAQMD	С	CEM		
	condition		each turbine/HRSG	condition				
	#18310,		powertrain, except during	#18310, Part		, ;	X	
	part 20a		turbine startup and	27b				
			shutdown					
NOx	BAAQMD	Υ	0.00904 lb/MM BTU for	BAAQMD	P/A	Source Test at		
	condition	l	each turbine/HRSG	condition		maximum load		
	#18310,		powertrain, except during	#18310, Part			X	
	part 20a		turbine startup and	31				
			shutdown			j		

Type of				Monitoring	Monitoring		Comp	liance
	Citation of	FE		Requirement	Frequency	Monitoring	Yes	No
Limit	Limit	Y/N	Limit	Citation	(P/C/N)	Type		
NOx	BAAQMD	Y	2.5 ppmv, @ 15% O2, dry,	BAAQMD	P/A	Source Test at	į	
	condition		for each tubine/HRSG	condition		maximum load		
}	#18310,		powertrain, 1-hr average	#18310, Part			х	!
ļ	part 20b		except during turbine	31				
			startup and shutdown		_			
NOx	BAAQMD	Y	2.5 ppmv, @ 15% O2, dry,	BAAQMD	С	CEM		
Į.	condition		for each tubine/HRSG	condition		l	İ	
	#18310,		powertrain, 1-hr average	#18310, Part	1		X	İ
	part 20b		except during turbine	27b				
			startup and shutdown					
NOx	BAAQMD	Υ	240 lb/gas turbine start-up	BAAQMD	С	CEM		•
	condition			condition			x	
	#18310,			#18310, Part			^	
ļ	part 21			27b				
NOx	BAAQMD	Υ	480 lb/hr during gas turbine	BAAQMD	С	CEM		
	condition		cold start-up or combustor	condition			v	
ļ	#18310,		tuning period	#18310, Part		1	X	
1	part 21			27b				
NOx	BAAQMD	Υ	80 lb/gas turbine shutdown	BAAQMD	С	CEM		
	condition			condition				
	#18310,			#18310, Part		<u> </u>	X	
	part 21			27b				
NOx	BAAQMD	Υ	1362.6 lb/day for S-1, S-3	BAAQMD	С	CEM		
	condition		Gas Turbines and S-2, S-4	condition	l			
ļ	#18310,		·HRSGs, combined	#18310, Part			X	
į	part 24a			27b				ļ
NOx	BAAQMD	·y	123.4 ton/yr for S-1, S-3	BAAQMD	С	CEM		
1102	condition	'	Gas Turbines and S-2, S-4	condition				ļ
	#18310,		HRSGs, combined	#18310, Part			x	
	part 25a		(including emissions from	27b			^	
	part 23a		commissioning period)	2,0		1		
со	BAAONAD	Υ		BAACNAD	D/A	Sauras Tast at		
	BAAQMD	'	18.7 lb/hr, for each	BAAQMD	P/A	Source Test at		
1	condition		turbine/HRSG powertrain,	condition		maximum load	x	
	#18310,		except during turbine	#18310, Part		and minimum		
	part 20c	,,	startup and shutdown	31		load		
со	BAAQMD	Y	18.7 lb/hr, for each	BAAQMD	С	CEM		
	condition		turbine/HRSG powertrain,	condition	ļ		X	
	#18310, part 20c		except during turbine startup and shutdown	#18310, Part 27b	Ì]	^	

				Monitoring	Monitoring		Comp	liance
Type of	Citation of	FE		Requirement	Frequency	Monitoring	Yes	No
Limit	Limit	Y/N	Limit	Citation	(P/C/N)	Type		'''
co	BAAQMD	Υ	0.0088 lb/MM BTU for each	BAAQMD	P/A	Source Test at		
	condition	1	turbine/HRSG powertrain,	condition		maximum load	x	
	#18310,		except during turbine	#18310, Part		and minimum	^	
	part 20d		startup and shutdown	31		load		
со	BAAQMD	Υ	0.0088 lb/MM BTU for each	BAAQMD	С	CEM		
	condition		turbine/HRSG powertrain,	condition		ļ	.,	1
	#18310,		except during turbine	#18310, Part			X	
	part 20d		startup and shutdown	27b				
со	BAAQMD	Υ	4 ppmv @ 15% O2, dry, for	BAAQMD	P/A	Source Test at	, <u>, , , , , , , , , , , , , , , , , , </u>	
	condition		each turbine/HRSG	condition		maximum load		ļ
	#18310,		powertrain, 3-hr average,	#18310, Part		and minimum	X	ŀ
	part 20d		except during turbine	31		load		1
]		startup and shutdown	1				
со	BAAQMD	Υ	4 ppmv @ 15% O2, dry, for	BAAQMD	С	CEM		
	condition		each turbine/HRSG	condition				
	#18310,		powertrain, 3-hr average,	#18310, Part		İ	x	
	part 20d]	except during turbine	27b				
	Parita		startup and shutdown			}		
со	BAAQMD	Y	4 ppmv @ 15% O2, dry, for	40 CFR 64.3	At least 4	CEM		
	condition	` ·	each turbine/HRSG	(b)(4)(ii)	times per			
	#18310,		powertrain, 3-hr average,	(=)(-),(-)	hour		x	
	part 20d	ı	except during turbine		(CAM Plan)			
	Park Edu		startup and shutdown		(i i		ļ
со	BAAQMD	Υ	2,514 lb/gas turbine startup	BAAQMD	С	CEM		
	condition	`	2,51 ; 10, 825 tar 5 5	condition				
•	#18310,			#18310, Part			X	ł
	part 21			27b		[1
со	BAAQMD	Y	5028 lb/hr during gas	BAAQMD	С	CEM		† .
co	condition	'	turbine cold start-up or	condition		65141		1
	#18310,	1	combustor tuning period	#18310, Part			X	1
			combustor tuning period	27b		,		
СО	part 21	Υ	902 lb/gas turbine	BAAQMD	С	CEM		1
CO	BAAQMD	'	shutdown	condition		CLIVI		
	condition		Silutuowii	#18310, Part		1	X	
	#18310,			#16510, Part				}
	part 21	l v	7 901 1 lb/dov/for 5 1 5 3		С	CEM		
со	BAAQMD	Y	7,891.1 lb/day for S-1, S-3	BAAQMD		CEM		
	#18310,	1	gas turbines and S-2, S-4	condition		1	x	
	11 EXIX (1)	1	HRSGs, combined	#18310, Part			X	i

				Monitoring	Monitoring		Comp	liance
Type of	Citation of	FE		Requirement	Frequency	Monitoring	Yes	No
Limit	Limit	Y/N	Limit	Citation	(P/C/N)	Туре	.	
со	BAAQMD	Y	588 ton/yr for S-1, S-3 gas	BAAQMD	С	CEM		1
	condition	ļ	turbines and S-2, S-4	condition				
	#18310,		HRSGs, combined (includes	#18310, Part			X	
	part 25b		emissions from	27b				1
	 	Y	commissioning period)	40 CER 75 10	С	fuel flow		
CO₂	 		None	40 CFR 75.10		1		
	1			Ĺ		monitor and	x	
	I					CO2		
	DA A COAD	l .	cucl-sos			calculation		<u> </u>
SO₂	BAAQMD	Υ	GLC ¹ of 0.5 ppm for 3 min	}	N			
	9-1-301		or 0.25 ppm for 60 min or				X	
			0.05 ppm for 24 hours		 			<u> </u>
SO₂	BAAQMD	Υ	300 ppm (dry)	}	N		x	
	9-1-302	.			<u> </u>			<u> </u>
SO ₂	NSPS	Y	0.015% (vol.)	NSPS 40 CFR	N			
	40 CFR		@ 15% O₂ (dry)	60.334(h)			X	
	60.333(a)							
SO₂	NSPS	Y	Total sulfur content of fuel	NSPS 40 CFR	P/M	Fuel sulfur		
	40 CFR		not to exceed 0.8 percent	60.334(h)(3)(i	1	content testing		
	60.333(b)		by weight (8000 ppmw)	i) and				
				BAAQMD			X	
				condition		1		
	1			#18310, Part				
	#			45	_,.			
SO₂		Y	None	40 CFR 75.11,	P/A	Fuel		
	ļ			40 CFR 75,		measurements	X	
				Appendix D,		, calculations		
				part 2.3				
SO2	BAAQMD	Y	1.28 lb/hr, for each	BAAQMD	P/A	Source test at		
	condition	ĺ	turbine/HRSH powertrain	condition		maximum load	x	
	#18310,			#18310, part]		
	part 20g	<u> </u>	4.00 11 //	31				
SO2	BAAQMD	Y	1.28 lb/hr, for each	BAAQMD	P/D	Records,		
	condition		turbine/HRSH powertrain	condition		calculations	x	
	#18310,			#18310, part		1		
	part 20g	<u> </u>		28				-
SO2	BAAQMD	Y	0.0006lb/MM BTU, for	BAAQMD	P/A	Source test at		
	condition		each turbine/HRSG	condition		maximum load	x	
	#18310,		powertrain	#18310, part				
	part 20g		· · · · · · · · · · · · · · · · · · ·	31				

				Monitoring	Monitoring		Comp	liance
Type of Limit	Citation of Limit	FE Y/N	Limit	Requirement Citation	Frequency (P/C/N)	Monitoring Type	Yes	No
SO2	BAAQMD condition #18310, part 20g	Υ	0.0006lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations	x	
SO2	BAAQMD condition #18310, part 24e	Y	57.9 lb/day for each turbine/HRSG powertrain	BAAQMD condition #18310, part	P/D	Records, calculations	x ,	
SO2	BAAQMD condition #18310, part 25e	Y	10.6 ton /yr for each turbine/HRSG powertrain (includes emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations	x	
Opacity	BAAQMD 6-1-301	N	> Ringelmann No. 1 for no more than 3 minutes in any hour		N		x	
Opacity	SIP 6-301	Y	> Ringelmann No. 1 for no more than 3 minutes in any hour		N	·	x	
FP	BAAQMD 6-1-310.3	N	0.15 grain/dscf @ 6% O2		N		х	
FP	SIP 6- 310.3	Υ	0.15 grain/dscf @ 6% O2		N		x	
PM ₁₀	BAAQMD condition #18310, part 20h	Υ	9 lb/hr, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	х	
PM ₁₀	BAAQMD condition #18310, part 20h	Y	0.00452 lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	х	
PM ₁₀	BAAQMD condition #18310, part 24d	Y	510 lb/day for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 28	P/D	Records, calculations	х	
PM ₁₀	BAAQMD condition #18310, part 25d	Y	83.34 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (including emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations	x	

				Monitoring	Monitoring		Comp	liance
Type of Limit	Citation of Limit	FE Y/N	Limit	Requirement Citation	Frequency (P/C/N)	Monitoring Type	Yes	No
POC	BAAQMD	Υ	2.7 lb/hr (as CH4) for each	BAAQMD	P/A	Source test at		
	condition		turbine/HRSG powertrain	condition		maximum load	.,	
	#18310,		except during turbine	#18310, part			X	ı
	part 20f		startup and shut down	31				l
POC	BAAQMD	Y	0.00126 lb/MM BTU (as	BAAQMD	P/A	Source test at		-
	condition		CH4) for each	condition		maximum load		
	#18310,		turbine/HRSG powertrain	#18310, part			X	
	part 20f		except during turbine	31				
	1		startup and shut down			1		
POC	BAAQMD	Υ	48 lb/gas turbine startup	BAAQMD	P/D	Records,		
	condition		, ,	condition		calculations		
	#18310,			#18310, part			X	
	part 21			28		1		
POC	BAAQMD	Y	16 lb/gas turbine shutdown	BAAQMD	P/D	Records,		
	condition			condition		calculations		
	#18310,			#18310, part		1	X	
	part 21			28				
POC	BAAQMD	Υ	96 lb/hr during gas turbine	BAAQMD	P/D	Records,		
	condition		cold start up or combustor	condition		calculations		
	#18310,	ļ	tuning period	#18310, part			X	
	part 21		,	28]		
POC	BAAQMD	γ	230.2 lb/day (as CH4) for S-	BAAQMD	P/D	Records,		
	condition	1	1, S-3 gas turbines and S-2,	condition		calculations		
	#18310,		S-4 HRSGs, combined	#18310, part		ļ	X	
	part 24c		,	28				
POC	BAAQMD	Y	28 ton/yr) for S-1, S-3 gas	BAAQMD	P/D	Records,		
	condition		turbines and S-2, S-4	condition		calculations		<u> </u>
	#18310,		HRSGs, combined	#18310, part	,		x	
	part 25c		(including emissions from	28	1			
			commissioning period)			, ,		
NH ₃	BAAQMD	N	5 ppmv, @ 15% O2 dry,	BAAQMD	С	Ammonia		
	condition] "	averaged over 3 hrs for	condition		injection rate		}
	#18310,	1	each turbine/HRSG	#18310, part		monitor		
	part 20e		powertrain, except during	27c	1		X	
	puit 200		turbine startup and					1
	N .		shutdown					
Formal-	BAAQMD	N	3796 lb/yr for S-1, S-3 gas	BAAQMD	P/D	Records,		1
dehyde	condition	'	turbines and S-2, S-4	condition	',,,	calculations		
20,40	#18310,	1	HRSGs, combined	#18310, part			X	
	part 26a	ĺ		29		1 1		

Type of				Monitoring	Monitoring		Comp	liance
Type of	Citation of	FE		Requirement	Frequency	Monitoring	Yes	No
Limit	Limit	Y/N	Limit	Citation	(P/C/N)	Туре		
Formal-	BAAQMD	N	3796 lb/yr for S-1, S-3 gas	BAAQMD	P/every two	Source Test		1
dehyde	condition		turbines and S-2, S-4	condition	years on P-1		x	
	#18310,	!	HRSGs, combined	#18310, part	or P-2		^	
	part 26a			33				
Benzene	BAAQMD	N	480 lb/yr for S-1, S-3 gas	BAAQMD	P/D	Records,		
	condition		turbines and S-2, S-4	condition		calculations	x	
	#18310,		HRSGs, combined	#18310, part			^	
)	part 26b			29				
Benzene	BAAQMD	N	480 lb/yr for S-1, S-3 gas	BAAQMD	P/every two	Source Test		
	condition		turbines and S-2, S-4	condition	years on P-1		.,	
	#18310,		HRSGs, combined	#18310, part	or P-2		X	
	part 26b			33				
Specific	BAAQMD	N	22.8 lb/yr for S-1, S-3 gas	BAAQMD	P/D	Records,		
PAH	condition		turbines and S-2, S-4	condition		calculations		
Compounds	#18310,		HRSGs, combined	#18310, part			X	
	part 26c		·	29				
Specific	BAAQMD	N	22.8 lb/yr for S-1, S-3 gas	BAAQMD	P/every two	Source Test		
PAH	condition		turbines and S-2, S-4	condition	years on P-1			
Compounds	#18310,		HRSGs, combined	#18310, part	or P-2		X	
,	part 26c		,	33				
Heat input	BAAQMD	Υ	2,124 MM BTU/hr (HHV), 3-	BAAQMD	С	Fuel meter,		
limit	condition		hr average for each	condition		firing monitor,		
h	#18310,		turbine/HRSG powertrain	#18310, part		calculations	X	
	part 14		, ,	27a				
Heat input	BAAQMD	Y	49,908 MM BTU/calendar	BAAQMD	С	Fuel meter,		
limit	condition		day (HHV), for each	condition		firing monitor,		
	#18310,		turbine/HRSG powertrain	#18310, part		calculations	Х	
	part 15		,	27a				İ
Heat input	BAAQMD	Υ	35,274,060 MM BTU/yr	BAAQMD	С	Fuel meter,		
limit	condition		(HHV) for S-1, S-3 gas	condition		firing monitor,		
	#18310,		turbines and S-2, S-4	#18310, part		calculations	x	
	part 16		HRSGs, combined	27a				
Cold Start-	BAAQMD	Υ	30 firing hours per year for	BAAQMD	P/E	Recordkeeping		
Up,	condition	'	S-1 and S-3 gas turbines,	condition	, ,,,	wecourseching		
Combustor	#18310,		combined for purposes of	#18310, part			x	
Tuning	part 48		cold start-up or combustor	49			^	
Firing Limit	Part 40		tuning	⁷³		[

Table VII - B Applicable Limits and Compliance Monitoring Requirements S-3, HEAT RECOVERY STEAM GENERATOR #1 S-4, HEAT RECOVERY STEAM GENERATOR #2

				Monitoring	Monitoring		Comp	liance
Type of Limit	Citation of Limit	FE Y/N	Limit	Requirement Citation	Frequency (P/C/N)	Monitoring Type	Yes	No
	1							
NOx	BAAQMD	N	9 ppmv @ 15% O2, dry	BAAQMD	С	CEM	v	
	9-9-301.1.3			9-9-501			X	
NOx	SIP	Υ	9 ppmv @ 15% O2, dry	SIP 9-9-501	С	CEM	х	
	9-9-301.3							
NOx	BAAQMD	N	0.15 LB/MMBTU or 5 ppmv	BAAQMD 9-9-501	С	CEM	x	
	9-9-301.2							
NOx	NSPS, 40	Υ	0.2 lb/ MM BTU except,	NSPS 40 CFR	С	CEM		
	CFR 60.44b		during start-up, shutdown or	60.48b (b)(2) and				
	(a)(4)(i)		malfuntion	BAAQMD		,	x	
	1			Condition				
				#18310, part 27b			·	
NOx	NSPS, 40	Υ	75 ppmv @ 15% O2, dry, 4-	NSPS 40 CFR	c ·	CEM		
	CFR 60.332		hour rolling average	60.334(c.) and				
	(a)(1)			BAAQMD			x	
				Condition	}			
				#18310, part 27b				
NOx		Υ	None	40 CFR 75.10	С	CEM	X	
NOx	BAAQMD	Υ	19.2 lb/hr for each	BAAQMD	С	CEM		
	condition		turbine/HRSG powertrain,	condition				
	#18310,	ŀ	except during turbine	#18310, Part 27b			X	
	part 20a		startup and shutdown					
NOx	BAAQMD	Υ	19.2 lb/hr for each	BAAQMD	P/A	Source Test		
	condition		turbine/HRSG powertrain,	condition		at maximum	••	
	#18310,		except during turbine	#18310, Part 31		load	×	
	part 20a		startup and shutdown					
NOx	BAAQMD	Υ	0.00904 lb/MM BTU for	BAAQMD	С	CEM		
	condition		each turbine/HRSG	condition				
	#18310,		powertrain, except during	#18310, Part 27b			x	
	part 20a		turbine startup and					
	1	1	shutdown	¥				

Limit	itation of			Monitoring	Monitoring		Comp	liance
		FE		Requirement	Frequency	Monitoring	Yes	No
NOx B	Limit	Y/N	Limit	Citation	(P/C/N)	Туре	ies	140
II II	BAAQMD	Y	0.00904 lb/MM BTU for	BAAQMD	P/A	Source Test		
C	condition		each turbine/HRSG	condition		at maximum		
#	#18310,		powertrain, except during	#18310, Part 31		load	X	
F	part 20a	ļ	turbine startup and		·			
			shutdown					
NOx B	BAAQMD	Υ	2.5 ppmv, @ 15% O2, dry,	BAAQMD	P/A	Source Test		
C/	condition		for each tubine/HRSG	condition		at maximum	•	
#	#18310,		powertrain, 1-hr average	#18310, Part 31		load	X	
l t	part 20b		except during turbine					
			startup and shutdown					
NOx B	BAAQMD	Υ	2.5 ppmv, @ 15% O2, dry,	BAAQMD	С	CEM		•
c c	condition		for each tubine/HRSG	condition			İ	
 	#18310,		powertrain, 1-hr average	#18310, Part 27b			х	
ŗ	part 20b		except during turbine				!	
			startup and shutdown					
NOx B	BAAQMD	Υ	1362.6 lb/day for S-1, S-3	BAAQMD	С	CEM		
c	condition		Gas Turbines and S-2, S-4	condition			v	
. #	#18310,		HRSGs, combined	#18310, Part 27b			х	
r	part 24a							
NOx B	BAAQMD	Υ	123.4 ton/yr for S-1, S-3 Gas	BAAQMD	С	CEM		
, c	condition		Turbines and S-2, S-4 HRSGs,	condition				
. 1	#18310,		combined (including	#18310, Part 27b			x	
¦ ∥ r	part 25a		emissions from					!
			commissioning period)					
со в	BAAQMD	Υ	18.7 lb/hr, for each	BAAQMD	P/A	Source Test		
c	condition		turbine/HRSG powertrain,	condition		at maximum		
. 	#18310,		except during turbine	#18310, Part 31		load and	x	
	part 20c		startup and shutdown		:	minimum		
						load		
CO B	BAAQMD	Υ	18.7 lb/hr, for each	BAAQMD	С	CEM		
c	condition		turbine/HRSG powertrain,	condition				
∦ 1	#18310,		except during turbine	#18310, Part 27b			x	
ı	part 20c		startup and shutdown				,	
CO B	BAAQMD	Y	0.0088 lb/MM BTU for each	BAAQMD	P/A	Source Test		.,
i 6	condition		turbine/HRSG powertrain,	condition		at maximum		
	#18310,		except during turbine	#18310, Part 31		load and	X	
]	part 20d		startup and shutdown		1	minimum		
'			July and Shataottii	}		load		

		·		Monitoring	Monitoring		Comp	liance
Type of	Citation of	FE		Requirement	Frequency	Monitoring	Yes	No
Limit	Limit	Y/N	· Limit	Citation	(P/C/N)	Туре		NU
со	BAAQMD	Y	0.0088 lb/MM BTU for each	BAAQMD	С	CEM		
	condition		turbine/HRSG powertrain,	condition				
	#18310,		except during turbine	#18310, Part 27b			х	
	part 20d		startup and shutdown				i	
	\\							
co	BAAQMD	Y	4 ppmv @ 15% O2, dry, for	BAAQMD	P/A	Source Test		
	condition		each turbine/HRSG	condition		at maximum		
	#18310,	:	powertrain, 3-hr average,	#18310, Part 31		load and	X	
	part 20d	<u> </u>	except during turbine			minimum		
			startup and shutdown			load		<u> </u>
со	BAAQMD	Y	4 ppmv @ 15% O2, dry, for	BAAQMD	С	CEM		
	condition		each turbine/HRSG	condition				
	#18310,		powertrain, 3-hr average,	#18310, Part 27b			X	
	part 20d		except during turbine					
			startup and shutdown					
co	BAAQMD	Υ	7,891.1 lb/day for S-1, S-3	BAAQMD	С	CEM		
	condition		gas turbines and S-2, S-4	condition			x	
	#18310,		HRSGs, combined	#18310, Part 27b			^	
	part 24b			ļ				
co	BAAQMD	Y	588 ton/yr for S-1, S-3 gas	BAAQMD	С	CEM		
	condition		turbines and S-2, S-4 HRSGs,	condition	Į.		I	
	#18310,		combined (includes	#18310, Part 27b			Х	
	part 25b	ı	emissions from					
			commissioning period)					
CO2		Υ	None	40 CFR 75.10	С	fuel flow		
						monitor and		
						CO2	Х	!
		<u> </u>				calculation		
SO₂	BAAQMD	Y	GLC ¹ of 0.5 ppm for 3 min or		N			
	9-1-301		0.25 ppm for 60 min or 0.05				X	
		<u> </u>	ppm for 24 hours					
SO ₂	BAAQMD	Υ	300 ppm (dry)		N		x	
10	9-1-302							
SO ₂	NSPS	Υ	0.015% (vol.)	NSPS 40 CFR	N			
	40 CFR		@ 15% O₂ (dry)	60.334(h)]		X	
	60.333(a)							

				Monitoring	Monitoring		Comp	oliance
Type of	Citation of	FE		Requirement	Frequency	Monitoring		
Limit	Limit	Y/N	Limit	Citation	(P/C/N)	Туре	Yes	No
SO ₂	NSPS	Υ	Total sulfur content of fuel	NSPS 40 CFR	P/M	Fuel sulfur		
	40 CFR		not to exceed 0.8 percent by	60.334(h)(3)(ii)	ľ	content		
	60.333(b)		weight (8000 ppmw)	and BAAQMD	ļ	testing	X	
				condition				
				#18310, Part 45				
SO₂		Υ	None	40 CFR 75.11, 40	P/A	Fuel		
	,	}		CFR 75, Appendix		measureme	u	
		İ		D, part 2.3		nts,	X	
						calculations		
SO2	BAAQMD	Υ	1.28 lb/hr, for each	BAAQMD	P/A	Source test		
	condition	İ	turbine/HRSH powertrain	condition		at maximum		
	#18310,			#18310, part 31		load	Х	
	part 20g			ļ				
SO2	BAAQMD	Υ	1.28 lb/hr, for each	BAAQMD	P/D	Records,		
	condition		turbine/HRSH powertrain	condition		calculations		
	#18310,			#18310, part 28			Х	
	part 20g							
SO2	BAAQMD	Υ	0.0006lb/MM BTU, for each	BAAQMD	P/A	Source test		
	condition		turbine/HRSG powertrain	condition	<u>'</u>	at maximum		
	#18310,			#18310, part 31	•	load	Х	
	part 20g							
SO2	BAAQMD	Υ	0.0006lb/MM BTU, for each	BAAQMD	P/D	Records,		
	condition		turbine/HRSG powertrain	condition		calculations		
	#18310,			#18310, part 28			Х	
	part 20g							
502	BAAQMD	Υ	57.9 lb/day for each	BAAQMD	P/D	Records,		
	condition	· .	turbine/HRSG powertrain	condition		calculations		
	#18310,	1	, , , , , , , , , , , , , , , , , , , ,	#18310, part 28			X	
	part 24e			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,]			
SO2	BAAQMD	Υ	10.6 ton /yr for each	BAAQMD	P/D	Records,		
	condition		turbine/HRSG powertrain	condition	, -	calculations		
	#18310,		(includes emissions from	#18310, part 28]		X	
	part 25e		commissioning period)	· · · · ·				
Opacity	BAAQMD	N	> Ringelmann No. 1 for no		N			
• •	6-1-301		more than 3 minutes in any				x	
			hour					
Opacity	SIP 6-301	Υ	> Ringelmann No. 1 for no		N			
1		•	more than 3 minutes in any	X] "		x	
			hour]		^	

				Monitoring	Monitoring		Com	oliance
Type of	Citation of	FE	e tourte	Requirement	Frequency	Monitoring	Yes	No
Limit	Limit	Y/N	Limit	Citation	(P/C/N)	Туре		'''
FP	6-1-310.3	N	0.15 grain/dscf @ 6% O2		N		x	
FP	SIP 6-310.3	Y	0.15 grain/dscf @ 6% O2		N		х	
PM	NSPS 40 CFR 60.42a (b)	Υ	< 20% opacity, 6 minute average, except one six minute period/hr up to 27% opacity		N		x	
PM ₁₀	BAAQMD condition #18310, part 20h	Y	9 lb/hr, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	x	
PM ₁₀	BAAQMD condition #18310, part 20h	Y	0.00452 lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	x	
PM ₁₀	BAAQMD condition #18310, part 24d	Y	510 lb/day for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 24	P/D	Records, calculations	x	
PM ₁₀	BAAQMD condition #18310, part 25d	Y	83.34 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (including emissions from commissioning period)	BAAQMD condition #18310, part 25	P/D	Records, calculations	x	
POC	BAAQMD condition #18310, part 20f	Y	2.7 lb/hr (as CH4) for each turbine/HRSG powertrain except during turbine startup and shut down	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	x	
POC	BAAQMD condition #18310, part 20f	Y	0.00126 lb/MM BTU (as CH4) for each turbine/HRSG powertrain except during turbine startup and shut down	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	x	
POC	BAAQMD condition #18310, part 24c	Y	230.2 lb/day (as CH4) for S- 1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 28	P/D	Records, calculations	x	

				Monitoring	Monitoring		Comp	liance
Type of	Citation of	FE		Requirement	Frequency	Monitoring		
Limit	Limit	Y/N	Limit	Citation	(P/C/N)	Туре	Yes	No
POC	BAAQMD	Y	28 ton/yr) for S-1, S-3 gas	BAAQMD	P/D	Records,		
	condition	!	turbines and S-2, S-4 HRSGs,	condition		calculations		
İ	#18310,		combined (including	#18310, part 28			x	
	part 25c		emissions from					
			commissioning period)					
NH ₃	BAAQMD	N	5 ppmv, @ 15% O2 dry,	BAAQMD	С	Ammonia		
	condition		averaged over 3 hrs for each	condition		injection		
	#18310,		turbine/HRSG powertrain,	#18310, part 27c		rate monitor	X	
	part 20e		except during turbine					
			startup and shutdown					
Formalde-	BAAQMD	N	3796 lb/yr for \$-1, \$-3 gas	BAAQMD	P/D	Records,		
hyde	condition		turbines and S-2, S-4 HRSGs,	condition]	calculations		
į	#18310,		combined	#18310, part 29			X	
	part 26a						!	
							L	
Formalde-	BAAQMD	N	3796 lb/yr for S-1, S-3 gas	BAAQMD	P/every	Source Test		
hyde	condition		turbines and S-2, S-4 HRSGs,	condition	two years	i		
	#18310,	ĺ	combined	#18310, part 33	on P-1 or		X	
	part 26a				P-2			
Benzene	BAAQMD	N	480 lb/yr for S-1, S-3 gas	BAAQMD	P/D	Records,		
	condition		turbines and S-2, S-4 HRSGs,	condition		calculations	· ·	
	#18310,		combined	#18310, part 29			X	
	part 26b							
Benzene	BAAQMD	N	480 lb/yr for S-1, S-3 gas	BAAQMD	P/every	Source Test		
1	condition		turbines and S-2, S-4 HRSGs,	condition	two years			i
	#18310,		combined	#18310, part 33	on P-1 or		×	1
	part 26b				P-2			
Specific PAH	BAAQMD	N	22.8 lb/yr for S-1, S-3 gas	BAAQMD	P/D	Records,		
Compounds	condition	1	turbines and S-2, S-4 HRSGs,	condition		calculations	J	
	#18310,		combined	#18310, part 29			×	
	part 26c							
Specific PAH	BAAQMD	N	22.8 lb/yr for S-1, S-3 gas	BAAQMD	P/every	Source Test		
Compounds	condition		turbines and S-2, S-4 HRSGs,	condition	two years			
	#18310,		combined	#18310, part 33	on P-1 or		, x	
	part 26c	<u> </u>			P-2			
Heat input	BAAQMD	Υ	2,124 MM BTU/hr (HHV), 3-	BAAQMD	С	Fuel meter,		
limit	condition		hr average for each	condition	1	firing	.,	
	#18310,		turbine/HRSG powertrain	#18310, part 27a		monitor,	X	
	part 14					calculations	<u>.</u>	

_				Monitoring	Monitoring		Compliance	
Type of Limit	Citation of Limit	FE Y/N	Limit	Requirement Citation	Frequency (P/C/N)	Monitoring Type	Yes	No
Heat input limit	BAAQMD condition #18310, part 15	Y	49,908 MM BTU/calendar day (HHV), for each turbine/HRSG powertrain	BAAQMD condition #18310, part 27a	С	Fuel meter, firing monitor, calculations	x	
Heat input limit	BAAQMD condition #18310, part 16	Υ	35,274,060 MM BTU/yr (HHV) for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 27a	С	Fuel meter, firing monitor, calculations	х	
Prohibited firing	BAAQMD condition #18310, part 17	Y	Each HRSG duct burner may not be fired unless its associated gas turbine is being fired	BAAQMD condition #18310, part 27a	С	Fuel meter, firing monitor, calculations	x	

$\label{eq:total-condition} \textbf{Table VII-C}$ Applicable Limits and Compliance Monitoring Requirements S-5 Cooling Tower

				Monitoring	Monitoring		Compliance	
Type of Limit	Citation of Limit	FE Y/N	Limit	Requirement Citation	Frequency (P/C/N)	Monitoring Type	Yes	No
Opacity	BAAQMD 6-1-301	Z	>Ringelmann No.1 for no more than 3 minutes in any hour		N		x	
FP	BAAQMD 6-1-310	Z	0.15 gr/dscf		N		x	
Opacity	SIP 6-301	Y	>Ringelmann No.1 for no more than 3 minutes in any hour		N		x	
FP	SIP 6-310	Y	0.15 gr/dscf		N		x	
Drift Rate	BAAQMD Condition #18310, part 46	Y	0.0005%	BAAQMD Condition #18310, part 46	P	Initial Source Test	x	
Total Dissolved Soilds	BAAQMD Condition #18310, part 46	Υ	5438 ppmw (mg/l)	BAAQMD Condition #18310, part 46	P/D	Sampling and Testing of cooling tower water	x	

Table VII – D Applicable Limits and Compliance Monitoring Requirements S-6 STATIONARY STANDBY GENERATOR SET

				Monitoring	Monitoring		Com	oliance
Type of Limit	Citation of Limit	FE Y/N	Limit	Requirement Citation	Frequency (P/C/N)	Monitoring Type	Yes	No
Opacity	BAAQMD 6-1-301	N	>Ringelmann No.1 for no more than 3 minutes in any hour		N			
Opacity	SIP 6-301	Y	>Ringelmann No.1 for no more than 3 minutes in any hour		N			
FP	BAAQMD 6-1-310.3	N	0.15 gr/dscf @ 6% O2		N			
FP	SIP 6-310.3	Υ	0.15 gr/dscf @ 6% O2		N			
SO₂	BAAQMD 9-1-301	Y	GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N		SOUR	CE NOT
SO₂	BAAQMD 9-1-302	Υ	300 ppm (dry)		N		COMM	ISSIONED
Heat Input Limit	BAAQMD Condition #22231 part 1	Υ	14.1 MM BTU/hr		N			
Reliability Related activities	BAAQMD Condition #22231 part 2	Y	100 hours per calendar year	BAAQMD Condition #22231 part 6	P/E	Recordkeeping		
NOx, CO and POC	BAAQMD Condition #22231 part 3	Y	1.0 g NOx/bhp-hr 2.75 g CO/bhp-hr 1.0 g POC/bhp-hr		N			

Table VII -- E Applicable Limits and Compliance Monitoring Requirements S-7 FIRE PUMP DIESEL ENGINE

_				Monitoring	Monitoring		Compliance	
Type of Limit	Citation of Limit	FE Y/N	Limit	Requirement Citation	Frequency (P/C/N)	Monitoring Type	Yes	No
Opacity	BAAQMD 6-1-301	N	>Ringelmann No.2 for no more than 3 minutes in any hour		N		x	
Opacity	SIP 6-301	Υ	>Ringelmann No.2 for no more than 3 minutes in any hour		N		x	
FP	BAAQMD 6-1-310.3	N	0.15 gr/dscf @ 6% O2		N		x	
FP	SIP 6-310.3	Υ	0.15 gr/dscf @ 6% O2		N	·	х	
SO ₂	BAAQMD 9-1-301	γ	GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N		X	
Fuel Sulfur Content	BAAQMD 9-1-304	Υ	Sulfur Content ≤ 0.5% by weight	,	N		x	
SO ₂	BAAQMD Condition #19610, part 39	N	Sulfur content of fuel less than 0.05% by weight	BAAQMD Condition #19610, part 39	P/E		x	
Reliability Related activities	BAAQMD Condition #21917 part 1	Y	30 hours per calendar year	BAAQMD Condition #21917 part 2, 3	P/E	Totalizing Meter, record keeping	x	